



06.28-05

AF  
FW

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

18

Application Number

10/708,471

Filing Date

03/05/2004

First Named Inventor

Henderson, Timothy David Robert

Art Unit

3714

Examiner Name

Nguyen, Kien T.

Attorney Docket Number

800769

**ENCLOSURES (Check all that apply)**

Fee Transmittal Form



Fee Attached



Amendment/Reply



After Final



Affidavits/declaration(s)



Extension of Time Request



Express Abandonment Request



Information Disclosure Statement



Certified Copy of Priority Document(s)

Reply to Missing Parts/  
Incomplete ApplicationReply to Missing Parts  
under 37 CFR 1.52 or 1.53

Drawing(s)



Licensing-related Papers



Petition

Petition to Convert to a  
Provisional ApplicationPower of Attorney, Revocation  
Change of Correspondence Address

Terminal Disclaimer



Request for Refund



CD, Number of CD(s) \_\_\_\_\_



Landscape Table on CD



After Allowance Communication to TC

Appeal Communication to Board  
of Appeals and InterferencesAppeal Communication to TC  
(Appeal Notice, Brief, Reply Brief)

Proprietary Information



Status Letter

Other Enclosure(s) (please identify  
below):

-- postcard receipt.

Remarks

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm Name

TAYLOR RUSSELL &amp; RUSSELL, P.C.

Signature

Printed name

DOUGLAS D. RUSSELL

Date

JUNE 27, 2005

Reg. No.

40152

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature

Typed or printed name

ELLEN HUFFMAN

Date

JUNE 27, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



10/708,471

Certificate of Mailing under 37 C.F.R. 1.10

I hereby certify that the correspondence attached hereto is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated below, Express Mail Label No. EV 453152763 US, and is addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

June 27, 2005  
Date

Ellen Huffman  
Ellen Huffman

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Timothy David Robert Henderson

Application No.: 10/708,471

Filed: 03/05/2004

Title: RESILIENT ELASTOMERIC STRUCTURE

Art Unit: 3714

Examiner: Kien T. Nguyen

Attorney Docket No.: 800769

Mail Stop AF  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**RESPONSE UNDER 37 CFR 1.111**

**Introductory Comments**

Dear Sir:

The Applicant thanks the Office for the consideration given the application in the communication of April 26, 2005. Applicant has submitted new Figure 12, which illustrates the elastomeric ride body of Figure 1 covered with a defensive cover of chain mail as set forth in claim 11, to overcome the Office objection under 37 CFR 1.83(a). The specification has also been amended to include numeric reference to the defensive cover shown in Figure 12.

Applicant has amended independent claim 1 by incorporating the limitations of dependent claims 4, 5, 6, 7 and 8 into claim 1, and canceled claims 4, 5, 6, 7 and 8. Claims 9, 10 and 25 have been amended to reflect the amendments made to claim 1 and to correct a typographical error. Claim

26 has also been canceled. These amendments are supported by the specification as filed, and no new matter has been added by these amendments.

Applicant submits that the claims, as amended, define over the references cited in the Office Action of April 26, 2005. Contrary to the Office's assertion of obviousness, all elements of Applicant's claims are not disclosed in the cited references of Steingraber et al in view of Nicolai. Although the purpose of Applicant's invention and the invention described in the Steingraber reference is to provide an elastomeric support structure for playground equipment, the mechanisms for producing that result are patentably distinguishable.

It is essential for long life and for safety of playground equipment that the elastomeric material used in ride support structures is loaded essentially in compression at the interconnection regions with the ride and the mounting base. Hence, the provision of a flange 30 in the elastomeric body of Applicant's invention that is clamped between an annular metal ring 42 and the mounting base 46, and between another annular metal ring 42 and the ride body 10. Material fatigue is a real problem in this type of application where there is a large amount of cyclic strain within the elastomer. Stress risers occur wherever there is an interface between metal and elastomeric components, and it is there that failure is most likely to occur. Fatigue is a highly undesirable failure mode since it tends to happen catastrophically.

It is inevitable that the Steingraber device will fatigue in an area surrounding the washers that are located below the nuts 24 and at the interface between the upper mounting member 36 and the elastomer dome 35, and the lower mounting member 25 and the elastomer dome 35. There is no clamping action at the concave wall 37 of the mounting member 36 and the elastomer dome 35, nor is there any clamping action between the flat metal plate mounting member 25 and the elastomer dome 35. These interfaces appear to rely on adhesion between the

mounting members 25, 36 and the elastomer dome for structural integrity. Therefore, it is inevitable over time that the grip of the elastomer material on the mounting members 25, 36 will eventually lessen, causing failure such that the supporting shaft 14 will part from the elastomer dome 35.

There is no elastomer held in compression for support in the Steingraber disclosure as is claimed in Applicant's disclosure. A careful reading of the Steingraber disclosure and close inspection of Figure 3 of Steingraber shows that the metal mounting member 25 lies below the flanged portion of the elastomer dome 35 of the spring device 10. Thus, the metal mounting member 25 does not compress the elastomer material of the dome 35. Likewise, there is no compressive clamping action in the region of the mounting member 36.

In addition, the assertion by the Office is not correct that the support post 14 described in the Steingraber reference is part of the ride body 12. It is clear from the description in column 2, lines 28-38 and in Figure 1 of the Steingraber reference that the essential elements of this invention include the ride body or seat unit 12, the support post 14, and the spring device 10. The essential elements of Applicant's invention are a ride body 10 and a support structure 12. Compare Applicant's Figure 1 with Steingraber's Figure 1, and Applicant's Figure 2 with Steingraber's Figure 2. The combination of the Steingraber's seat unit 12, support post 14 and Applicant's support structure 12 would not equal Applicant's claimed invention, as suggested by the Office. Since Applicant's does not require the essential element of a support post as required by the Steingraber reference, Applicant's invention provides a patentable improvement over the Steingraber invention.

Therefore, Applicant submits that the rejections are unsupported by the art and should be withdrawn. Applicants request reconsideration and examination of the application in view of the following amendments and discussion.

Applicant further requests reconsideration of the decision to make the second Office Action a final Office Action. Applicant bases the request on the fact that claims 4-26 were objected to and not considered on the merits in the first Office Action with a mail date of September 28, 2004. Another factor is that claims 27 and 28 were rejected under 35 U.S.C. § 112 as being indefinite, and were not considered on the merits.